

**Remarks:**

**Status of the Claims**

Claims 1-4 and 6-11 were previously pending with claims 1 and 3 being independent. Claims 1 and 11 are presently amended. Claims 1-4 and 6-11 are currently pending with claims 1 and 3 being independent.

In the Office Action dated January 5, 2009, claims 1–4 and 6–11 were rejected under 35 U.S.C. § 103 as being unpatentable over Wyatt (U.S. Patent No. 6,490,530), 42 USC 11023 (a), Ishizaka et al. (U.S. Patent No. 5,077,010), and UV (PCT/US00/04). Claims 1-4 and 6-11 were also rejected under 35 U.S.C. § 101 and 112, as discussed below.

**03-31-09 Telephone Interview with Examiner Dean Nguyen**

Patent Agent Jaclyn S. Alcantara (Reg. No. 61,638) conducted a telephone interview with Examiner Dean Nguyen regarding U.S. Application No. 10/672,212. The relevant arguments and proposed amendments presented in a Telephone Interview Agenda to Examiner Nguyen have been incorporated into this Amendment. Examiner Nguyen agreed that the claims are directed to statutory subject matter and therefore overcome the present 35 U.S.C. § 101 rejections. Additionally, Examiner Nguyen agreed that the proposed amended claims, as presented in the Telephone Interview Agenda and included herein, overcome the 35 U.S.C. § 112 rejections. Regarding claim 3, Examiner Nguyen acknowledged that if Wyatt does not teach, imply, or require displaying an image, this step in the application's claims is not obvious in view of Wyatt.

**35 USC 101 Rejections**

Examiner Matthew Meyers rejected claim 1 under 35 USC 101, asserting that the claimed invention is directed to non-statutory subject matter. However, we contend that the recitation of “a plurality of remote sensing units and a control unit” as well as “a

secure remote server” in claim 1 adequately tie the process to a particular apparatus. Furthermore, claim 1 does not include “extra-solution activity thus insignificant to the overall method steps,” as asserted by the Examiner on pages 3 and 4 of the Office Action. Each of the steps presented in claim 1 are important steps to the invention and should be given equal patentable weight.

**Claim 1 Rejections under 35 U.S.C. § 112**

The Examiner rejected claim 1 under 35 USC 112 for failing to comply with enablement requirements and for indefiniteness. Specifically, the Examiner states, “Applicant sets forth ‘establishing a hierarchy’, but does not provide sufficient guidance of direction as to how one skilled in the art would establish this hierarchy without undue experimentation.” (OA, page 2) The presently amended claim 1 replaces the phrase “establishing a hierarchy of threat response and evaluation authorities” with the phrase “notifying a hierarchy of threat response and evaluation authorities of the report”. Support for this amendment may be found on page 5, ln 12-15; page 25, ln 10-32; page 26, ln 1-10; and page 28, ln 24-28.

Furthermore, the Examiner states, “Applicant claims uploading the report, but has not positively recited creating a report.” (OA, pages 2-3). Therefore, claim 1 is presently amended to positively recite the step of “generating a report with the control unit, the report comprising an image of the substance.” Support for this amendment may be found on page 5, ln 12-15; page 12, ln 4-11; and page 27, ln 27-32.

**Claim 1 Rejections under 35 U.S.C. § 103**

Examiner Meyers rejected claim 1 under 35 U.S.C. § 103, asserting that independent claim 1 is unpatentable over Wyatt. The applicant respectfully disagrees.

Wyatt generally discloses aerosol cloud detection using scattered light from a laser beam. Wyatt does not disclose “...wherein the report comprises *an image* of the substance,” as in claim 1 (Emphasis added). Specifically, the terms “screen”, “display”,

"graphic", and "image" are not present in Wyatt, and measuring light does not inherently require a displayed result.

As noted by the Examiner on page 3 of the Office Action, Wyatt discloses detector stations capable of measuring and classifying aerosol particles (col. 8, lines 34-44). However, measuring and classifying does not teach a report comprising an image of the substance, as recited in claim 1. Furthermore, as noted by the Examiner, the "Background" section of Wyatt discloses a need for spectroscopic techniques (Col 3, lines 5-10). This passage simply discloses a need, and does not disclose specific spectroscopic techniques or how they may be utilized by the "detector stations" disclosed in Wyatt. Second, this passage does **not** disclose an image of the substance, nor a report comprising an image of the substance, as recited in claim 1.

Spectroscopy generally relates to the study of interaction between matter and radiation. "Spectroscopic techniques" can be techniques of studying, measuring, or observing matter and its interaction with radiation, and does not inherently require an image of the substance nor inherently result in an image of the substance. Indeed, Col 3, lines 8-10 recite, "Such techniques would collect and process radiance from natural or preexisting sources." Collecting and processing radiance does not explicitly nor inherently teach "an image of the substance." As stated in the MPEP, "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference.'" Therefore, the vague reference to "spectroscopic techniques" in the "Background" section of Wyatt neither teaches nor implies a report comprising an image of the substance, as recited in claim 1.

Additionally, as noted by the Examiner on page 5 of the Office Action, Wyatt discloses that the CPU will collect and process such identification or classification results to determine other aerosol particle properties following the on-board CPU instructions (Col. 12, lines 20-25) and such information includes estimates of threat characteristics (Col. 14, lines 3-11). However, collecting and processing identification or classification results does not explicitly nor implicitly teach a report *comprising an image* of the substance, as recited

in claim 1 of the present application.

**Claim 3 Rejections under 35 U.S.C. § 103**

The Examiner rejected claim 3 under 35 U.S.C. § 103 in view of Wyatt, asserting that Wyatt teaches a report comprising an image of the substance. Wyatt teaches performing a set of scattered light measurements by which the target aerosol particles are well classified and/or identified. Page 15 of the Office Action recites "Examiner is interpreting the results of scattered light measurement as image of the substance since scatter light measurements are displayed graphically as images." However, as discussed above, the terms "screen", "display", "graphic", and "image" are not present in Wyatt, and measuring light does not inherently require a displayed result.

Specifically, Wyatt teaches measuring scattered light, sending a signal representing this measurement to a digital signal processing chip, which then sends a resulting set of digitized signals to an on-board central processing unit (CPU). The CPU analyzes the signals to identify or characterize the particles and stores and/or telemeters the data to a remote central station. The central station may also analyze the sets of data, and depending on various factors, may signal alarms or warnings to be sent to potentially threatened regions. (Wyatt, Abstract). None of the steps recited in Wyatt require or suggest displaying scatter light measurements graphically as an image.

Additionally, regarding claim 3, neither Wyatt nor 42 USC 11023 (a) teach "wherein the report includes a magnified image of the substance". As previously noted by the Applicant, particles of a substance being classified or identified one-at-a-time does not teach nor imply a *magnified image* of the substance. Instead, as described in Col. 8, lines 46-51 of Wyatt, the sampled aerosol stream is diluted so that only a single particle is in the laser beam at any moment, and then light scattering measurements are made on each transiting particle. So Wyatt discloses measurements of individual particles of a substance, but does not suggest nor require a magnified image of the substance to do so.

Additionally, the scattered light measurements as taught in Wyatt do not result in a magnified image of the substance. Instead, as disclosed in Wyatt, Col. 11, line 30 to Col. 12, line 19, scattered light measurements result in a set of intensity values of light scattered by the passage of the particles through a light beam. An analysis of these intensity values (**not** of a magnified image) is used to classify and/or identify the target aerosol particles in Wyatt. Therefore, Wyatt does not teach or suggest providing a corresponding report comprising a magnified image of the substance as recited in Claim 3, and is therefore allowable over the prior art.

#### **Claim 8 Rejections under 35 U.S.C. § 103**

Claim 8 discloses that the "image of the substance is a microscope-magnified image," and is allowable in view of the arguments above regarding Claim 3. Furthermore, Wyatt does not disclose a microscope or an image of the substance magnified by a microscope.

#### **Claim 11 Rejections under 35 U.S.C. § 112**

The Examiner rejected claim 11 under 35 USC 112 for failing to comply with enablement requirements and for indefiniteness. Claim 11 is presently amended to recite "wherein the remote sensing units act to properly physically orient themselves upon hitting ground to properly position various operational elements of the remote sensing units." Support for this amendment may be found on page 19, ln 1-16. This amendment clarifies that "proper orientation" refers to the physical orientation of the sensing units.

#### **Claim 11 Rejections under 35 U.S.C. § 103**

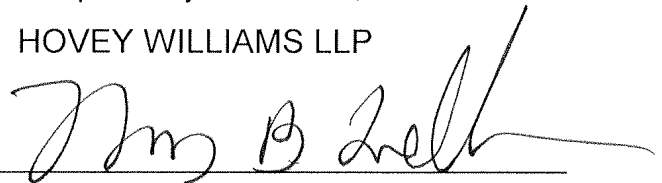
The Examiner also rejected claim 11 under 35 USC 103 in view of Wyatt and UV (PCT/US00/04). Though page 66, lines 1-8 of UV disclose airdropping a sensor, neither UV nor Wyatt disclose the remote sensing units acting to properly physically orient themselves upon hitting the ground, as in the presently amended claim 11.

**Conclusion**

For at least the reasons set forth above, applicant respectfully submits that claims 1–4 and 6–11 are in allowable condition and requests a Notice of Allowance. In the event of further questions, the Examiner is urged to call the undersigned. Any additional fee which is due in connection with this amendment should be applied against our Deposit Account No. 19-0522.

Respectfully submitted,  
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